

Claim Amendments

1-14 (cancelled).

15 (currently amended). An apparatus for welding a panel, comprising:

a welding area in which a flat panel framework having opposed first and second sides, each side having plural planar conductive surfaces, may be is horizontally positioned positionable at a first welding position;

a first welding station situated in a first row within the welding area and positionable adjacent in contact with the first side of a panel framework in the first welding position, the first welding station comprising adjacent first and second electrodes of opposed polarity, each electrode having a planar contact surface adapted to contact a planar conductive surface of the first side; and

a second welding station situated in a second row within the welding area, longitudinally spaced from the first row, and positionable adjacent in contact with the second side of a panel framework in the first welding position, the second welding station comprising adjacent electrodes of opposed polarity.

16 (original). The apparatus of claim 15, further comprising:  
a conveyor capable of moving the panel framework horizontally  
within the welding area from a first welding position to  
a second welding position.

17 (original). The apparatus of claim 15 in which the welding  
stations in the first and second rows are capable of welding  
simultaneously.

18 (original). The apparatus of claim 15, further comprising;  
a third welding station situated in a first row within the  
welding area and positionable adjacent the first side of  
a panel framework in the first welding position, the  
third welding station comprising adjacent electrodes of  
opposed polarity; and  
a fourth welding station situated in the second row within the  
welding area, and positionable adjacent the second side  
of a panel framework in the first welding position, the  
fourth welding station comprising adjacent electrodes of  
opposed polarity.

19 (new). The apparatus of claim 15, further comprising:  
a panel framework situated within the welding area;  
in which the panel framework is further characterized as  
comprising:

at least one channel-shaped first rail having a plurality of longitudinally spaced openings therein; and a plurality of longitudinally spaced upright members, each upright member extending in transverse relationship to the at least one first rail, through the rail channel thereof, and through a corresponding opening therein.

20 (new). The apparatus of claim 19 in which the rail is characterized as having a web with spaced side walls extending therefrom, and in which at least one of the side walls is characterized by a weld-forming region which projects within the rail channel.

21 (new). The apparatus of claim 19 in which the panel framework further comprises:

a second channel-shaped rail, disposed in laterally spaced parallel relationship to the first rail; in which each upright member extends in transverse relationship to the second rail, and within the rail channel thereof.

22 (new). The apparatus of claim 19 in which the width of the first electrode is least about 75% of the width of the first rail.

23 (new). The apparatus of claim 22 in which the width of the second electrode is at least about 75% of the width of an upright member.

24 (new). The apparatus of claim 19 in which the width of the second electrode is at least about 75% of the width of an upright member.

25 (new). The apparatus of claim 15 in which the first and second electrodes are characterized by a center-to-center separation of between about 2 and about 3 inches.

26 (new). An apparatus for welding a panel, comprising:

a welding area in which a flat panel framework having opposed first and second sides is horizontally positionable at a first welding position;

a panel framework situated within the welding area, the panel framework comprising:

at least one channel-shaped first rail having a plurality of longitudinally spaced openings therein; and

a plurality of longitudinally spaced upright members, each upright member extending in transverse relationship to the at least one first rail, through the rail channel thereof, and through a corresponding opening therein; and

a first welding station situated in a first row within the welding area and positionable adjacent the first side of a panel framework in the first welding position, the first welding station comprising adjacent first and

second electrodes of opposed polarity, the first electrode adapted to contact a first rail and the second electrode adapted to contact one of the upright members.

27 (new). The apparatus of claim 26, further comprising:

a second welding station situated in a second row within the welding area, spaced from the first row, and positionable adjacent the second side of a panel framework in the first welding position, the second welding station comprising adjacent electrodes of opposed polarity.

28 (new). The apparatus of claim 26 in which the rail is characterized as having a web with spaced side walls extending therefrom, and in which at least one of the side walls is characterized by a weld-forming region which projects within the rail channel.

29 (new). The apparatus of claim 26 in which the rail is characterized as having a web with spaced side walls extending therefrom, and in which each side wall is characterized by a weld-forming region which projects within the rail channel.

30 (new). The apparatus of claim 26 in which the panel framework further comprises:

a second channel-shaped rail, disposed in laterally spaced parallel relationship to the first rail;

in which each upright member extends in transverse relationship to the second rail, and within the rail channel thereof, and in which the first welding station further comprises a third electrode adapted to contact the second rail.

31 (new). The apparatus of claim 26 in which the width of the first electrode is least about 75% of the width of the first rail.

32 (new). The apparatus of claim 26 in which the width of the second electrode is at least about 75% of the width of an upright member.

33 (new). The apparatus of claim 26 in which the first and second electrodes are characterized by a center-to-center separation of between about 2 and about 3 inches.

34 (new). The apparatus of claim 26, further comprising:  
a conveyor capable of moving the panel framework horizontally within the welding area from a first welding position to a second welding position.